UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/212,434	12/16/1998	KITAHIRO KANEDA	862-2569	8458

			EXAMINER
5514	7590	04/19/2004	DASTOURI, MEHRDAD

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ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _28 January 2004_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _16-24,37-40,44-47,49,79 and 80_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _16-24,37-40,44-47,49,79 and 80_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment filed January 28, 2004, has been entered and made of record.

2.   Applicant is respectfully requested to identify appropriate portions in the specification or drawings for supporting the newly added limitations

3.   Applicant's arguments have been fully considered but they are not persuasive. Applicant argue in essence that prior art of record (Shimada et al and Anderson) do not disclose the feature of a manuscript ID transmitted without the image data of the manuscript.

The Examiner disagrees and indicates that Shimada et al clearly disclose the manuscript ID has been transmitted separately from image data of the manuscript. The information of character recognizing condition has been obtained including identification number (e.g., card number or describer name (manuscript ID)) as described in Column 8, Lines 39-55. The manuscript ID (e.g., describer name) will include information for an identification of the manuscript which will select proper dictionary that contains handwriting characteristics of the describer. This information has been separately transmitted from the image data of the manuscript.

It would have been obvious for a person of ordinary scale in the art at the time the invention was made to scan the manuscript to obtain the manuscript ID in lieu of the input unit 19 for inputting this data to the recognition system.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 16-24, 79 and 80 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Shimada et al (U.S. 5,982,928) in view of Anderson (U.S. 5,235,654).

Regarding Claim 16, Shimada et al disclose a communication system comprising

a terminal (Figure 1, Terminals 5/6 and 7/8) and a central control unit (Figure 1, Host

Terminal 10000), said terminal comprising:

Image obtaining means for obtaining image data of a manuscript, the image data

including a manuscript ID image (Column 1, Lines 57-67; Figure 2, Input Device 19.

CPU 15 will obtain image data of the manuscript inputted by a pen input; Column 2,

Lines 60-63; Column 7, Lines 46-47. The image data includes a manuscript ID or

attribute information representing the input source (Column 2, Lines 28-30).);

manuscript ID recognition means for recognizing the manuscript ID image

included in the image data and obtaining a manuscript ID as the recognition result of the

manuscript ID image, the manuscript ID indicating information for an identification of the

manuscript (Figure 1, Recognition Control Unit 4; Column 5, Lines 46-57; Column 8,

Lines 39-49. The information of character recognizing condition will be obtained

including terminal ID or describer name (manuscript ID). The manuscript ID (e.g.,

describer name) include information for an identification of the manuscript which will select proper dictionary that contains handwriting characteristics of the describer.);

first transmitting means for transmitting the obtained manuscript ID without image data of the manuscript to said central control unit (Figure 2, Communication Device 2; Column 6, Lines 48-54; Column 8, Lines 39-55);

first receiving means for receiving a control signal from said central control unit, the control signal including an information of character recognizing condition of the manuscript determined based on the manuscript ID by the central control unit (Figure 2, communication Device 23; Column 7, Lines 60-67, Column 8, Lines 1-3. Shimada et al disclose that the manuscript ID recognition means is included in both the host terminal and the central control unit. The central control unit and terminal A and B have the same configuration and utilize the same application programs as indicated in Column 5, Lines 4-10 and Column 5, Lines 30-31.);

character recognition means for performing character recognition of the character images included in the image data in accordance with the information of character recognizing condition included with the control signal (Figure 1, Recognition Engines/Basic and Personal Dictionaries 6 and 8; Column 5, Lines 30-34; Figure 5A; Column 7, Lines 60-67, Column 8, Lines 1-3. As depicted in Figure 5A, in Step S15, handwritten recognition is requested to be performed in corresponding terminals 5 or 7. The control signal from host terminal (Central Control Unit 10000) is the recognition request command (stroke information including the writing position/time information as disclosed in Column 8, Lines 39-49) and the pointer of the data to be recognized.);

said central control unit comprising:

second receiving means for receiving the manuscript ID transmitted from said

first transmitting means (Figure 1, Communication Service 2, Recognition Control Unit

4; Column 5, Lines 40-57);

obtaining means for obtaining the information of character recognizing condition

based on the received manuscript ID (Figure 2, communication Device 23; Column 7,

Lines 60-67, Column 8, Lines 1-3. Shimada et al disclose that the manuscript ID

recognition means is included in both the host terminal and the central control unit. The

central control unit and terminal A and B have the same configuration and utilize the

same application programs as indicated in Column 5, Lines 4-10 and Column 5, Lines

30-31.); and

second transmitting means for transmitting the control signal including the

obtained information of character recognizing condition to said first receiving means of

terminal (Figure 2, Communication Device 23; Figure 5B; Column 8, Lines 39-49).

Shimada et al do not disclose the image data of manuscript is obtained by

scanning the manuscript, and the information of character recognizing condition

includes positional information of recognition areas of the manuscript.

Anderson et al disclose advanced data capture architecture by scanning images

of document forms comprising:

obtaining image data of a manuscript by scanning the manuscript (Figures 1L

and 2A-2C; Column 13, Lines 19-45);

recognizing the scanned manuscript (Figure 1L, Intelligent Form Processor 25; Column 6, Lines 44-67, Column 7, Lines 1-13),

wherein the information of character recognizing condition includes positional information of recognition areas of the manuscript (Figures 1A- 1G(Z), 2A-2D; Columns 13-16, First and Second Examples).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Shimada et al invention according to the teachings of Anderson et al to obtain the image data of manuscript by scanning the manuscript, and include positional information of recognition areas of the manuscript in the information of character recognizing condition because scanning the manuscript for obtaining image data and incorporating positional information of recognition areas of manuscripts (e.g., form documents) are extremely well known in the art. Incorporating these features in the communication system (customarily utilized in financial transactions) will expand the versatility of the system and will provide more accurate and more reliable character recognition process.

Regarding Claim 17, Shimada et al further disclose the communication system according to Claim 16, wherein said character recognition means determines recognition candidate characters corresponding to the image data in accordance with the information of character recognition condition included with said control signal and outputs a predetermined number of recognition candidate characters in an order characters (Figure 1, Terminals 5/6 and 7/8; Column 7, Lines 24-27. Candidate characters are recognized with using a recognition dictionary).

Shimada et al do not disclose determining recognition candidate characters according to largeness of similarity of the recognition candidate characters.

Anderson et al disclose an advanced data capture architecture by scanning images of document forms wherein the candidate characters are recognized according to largeness of similarity of the recognition candidate characters (Figure 3; Column 23, Lines 57-67 to Column 26, Lines 1-8).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Shimada et al invention according to the teachings of Anderson et al to determine recognition candidate characters using a recognition dictionary based on the control signal and output a predetermined number of recognition candidate characters in the order characters because it will increase accuracy of the recognition system by selecting candidate characters having highest probability of similarity.

Regarding Claim 18, Shimada et al further disclose the communication system according to Claim 16, wherein said central control unit further comprises a database for managing the control signal for the information of character recognizing condition corresponding to the manuscript ID, wherein said obtaining means obtains from said database the control signal corresponding to the manuscript ID (Figure 1, Attribute Addition Unit 103, Personal/Basic Dictionaries 106/108; Column 5, Lines 46-63).

Regarding Claim 19, Shimada et al further disclose the communication system according to Claim 16, wherein the information of character recognizing condition includes positional information, showing each of plural recognition areas in the image

data, and recognition dictionary information showing a recognition dictionary used for

recognition in each recognition area (Column 8, Lines 39-55. The control signal from

host terminal (central control unit) to terminals 5 and 7 includes position information

(e.g., a rectangular enclosing the data to be recognized) and stroke information which is

based on the attribute of the terminal describer identifying the relevant dictionary

(template) to be utilized.).

With regards to Claims 20, 24 arguments analogous to those presented for Claim

16 are applicable to Claims 20, 24.

With regards to Claim 21 arguments analogous to those presented for Claim 17

are applicable to Claim 21.

With regards to Claim 22 arguments analogous to those presented for Claim 18

are applicable to Claim 22.

With regards to Claim 23 arguments analogous to those presented for Claim 19

are applicable to Claim 23.

With regards to Claims 79 and 80 arguments analogous to those presented for

Claim 1 are applicable to Claims 79 and 80.

6.   Claims 37-40 and 44-47 and 49 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Shimada et al (U.S. 5,982,928) further in view of Anderson (U.S.

5,235,654), Kunio Sakai (JP 58-182956) and Bricklin et al (U.S. 5,848,187).

Regarding Claim 37, Shimada et al further disclose the communication system

according to Claim 36, wherein said character recognition means performs character

recognition from the image data and outputs the recognition candidate character judged as recognizable (Figure 4B; Column 7, Lines 19-27).

Shimada et al further disclose transmitting information of character recognizing condition that includes stroke information of manuscript characters (Column 8, Lines 39-41).

Neither Shimada et al nor Anderson et al disclose transmitting information of character recognizing condition that includes threshold information.

Kunio Sakai discloses a facsimile device that transmits information of character recognizing condition that includes threshold information (Abstract and Constitution).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Shimada et al and Anderson et al combination according to the teaching of Kunio Sakai to include threshold information in the information of character recognizing condition because it will increase the accuracy of character recognition system by utilizing detailed information of acceptable thresholds and, consequently, will minimize erroneous recognition of characters.

Shimada et al, Anderson and Kunio Sakai disclose judging on the basis of threshold information included in the information of character recognizing condition whether the recognition candidate character included in the result of character recognition is unrecognizable.

Bricklin et al disclose a handwritten recognition method and apparatus wherein a judging means judges on the basis of a predetermined threshold whether the recognition candidate character is unrecognizable (Column 18, Lines 41-64), and

wherein said character recognition means outputs the result of character recognition on the basis of a judgment result of the judging means (Figure 16A; Column 25, Lines 65-67, Column 26, Lines 1-15).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Shimada et al, Anderson et al and Kunio Sakai combination according to the teaching of Bricklin et al to judge on the basis of the information of character recognizing condition whether the recognition candidate character is recognizable because it will reduce the probability of erroneous character recognition and will provide more accurate recognition results.

Regarding Claim 38, Bricklin et al further disclose the communication system according to Claim 37, wherein said character recognition means judges whether said recognition candidate character included the result of character recognition is unrecognizable, by comparing the threshold information with similarity of said recognition candidate character (Column 18, Lines 54-62).

Regarding Claim 39, Bricklin et al further disclose the communication system according to Claim 38, wherein said character recognition means judges that the recognition candidate character is unrecognizable, if the threshold information is larger than the similarity of said recognition candidate character (Column 18, Lines 54-57. The handwritten character is unrecognizable if the predetermined threshold is larger than the confidence level for the best fit of the candidate character).

Regarding Claim 40, Bricklin et al further disclose the communication system according to Claim 37, wherein said character recognition means outputs a

predetermined code showing unrecognizableness when all of the recognition candidate

character is judged as unrecognizable character (Figure 16A; Column 25, Lines 59-61).

With regards to Claims 42 and 49 arguments analogous to those presented for

Claims 37 and 19 are applicable to Claims 42 and 49.

With regards to Claim 44 arguments analogous to those presented for Claim 37

are applicable to Claim 44.

With regards to Claim 45 arguments analogous to those presented for Claim 38

are applicable to Claim 45.

With regards to Claim 46 arguments analogous to those presented for Claim 39

are applicable to Claim 46.

With regards to Claim 47 arguments analogous to those presented for Claim 40

are applicable to Claim 47.

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Contact Information

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Mehrdad Dastouri whose telephone number is (703)

305-2438. The examiner can normally be reached on Monday to Friday from 8:00 a.m.

to 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Mehrdad Dastouri
Primary Examiner
Group Art Unit 2623
April 18, 2004

MEHRDAD DASTOURI
PRIMARY EXAMINER